



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,552	03/25/2004	Susann Marie Keohane	AUS920040035US1	7922
34533	7590	02/02/2009	EXAMINER	
INTERNATIONAL CORP (BLF)			WANG, BEN C	
c/o BIGGERS & OHANIAN, LLP			ART UNIT	
P.O. BOX 1469			2192	
AUSTIN, TX 78767-1469			PAPER NUMBER	
		MAIL DATE		DELIVERY MODE
		02/02/2009		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/809,552	KEOHANE ET AL.	
	Examiner	Art Unit	
	BEN C. WANG	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 October 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

1. Applicant's response dated October 8, 2008, responding to the Office action mailed July 9, 2008 provided in the rejection of claims 1-20.

Claims 1-20 remain pending in the application and which have been fully considered by the examiner.

Applicant's arguments with respect to claims rejection have been fully considered but are moot in view of the new grounds of rejection – see *Marchand*, art made of record, as applied hereto.

Claim Rejections – 35 USC § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balasayee et al., (Workload Management: SP and Other RS/6000 Servers, March 2000, International Technical Support Organization, IBM Corporation, First Edition) (hereinafter 'Balasayee') in view of Benoit Marchand (Pub. No. US 2005/0216910 A1) (hereinafter 'Marchand' - art made of record)

3. **As to claim 1** (Original), Balasayee discloses a method for assigning computational processes in a computer system to workload management classes, the method comprising:

- executing a process in dependence upon the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)); and
- assigning the process to the workload management (e.g., Sec. 2.3 – AIX® Workload Manager – WLM monitors and regulates the allocation of system resources for use applications running on an RS/6000 server; Sec. 2.3.1 – The goal of AIX® Workload Manager, 1st Par. – The goal of AIX® Workload Manager is to provide ways of controlling resources within an RS/6000 server on in an SP node in order to balance the workload at the node level by assigning relative priorities to various sets of tasks or to prevent one application from monopolizing the system resources)

Further, Balasayee discloses that the goal of workload management is to optimize the allocation of resources to the task that are to be executed by an RS/6000 SP environment (e.g., Preface), but does not explicitly disclose other limitations stated below.

However, in an analogous art of *Increasing Fault-Tolerance and Minimizing Network Bandwidth Requirements in Software Installation Modules*, Marchand discloses installing on the computer system an executable file from a software installation package, wherein the software installation package includes a specification of workload management properties for the executable file, including a definition of a workload management class. (e.g., Fig. 2, elements 270 – Workload Management Module; 260 – Installation Management Module; [0021] - ... for asynchronous software package data distribution and subsequent installation wherein software installation triggering is performed through a job distribution workload management module; [0044] - ... a job-distribution workload management module 270 is used to trigger software installation ... [0045] - ... an embodiment of the present invention may use the capacity of the workload management module 270 to perform pre- and post-task distribution procedures, which may include software installation ...)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Marchand into the Balasayee's system to further provide other limitations stated above in the Balasayee system.

The motivation is that it would further enhance the Balasayee's system by taking, advancing and/or incorporating the Marchand's system which offers significant advantages that the system and method improve speed, scalability, robustness, and dynamism of software installation modules; computer system management, such as operating system update or installation, can benefit from a priori transfer of sets of

software package data file or other data to remote computers prior to installation taking place as once suggested by Marchand (e.g., [0018])

4. **As to claim 2** (Original) (incorporating the rejection in claim 1), Balasayee discloses the workload management class definition further comprises a class name, a priority ranking, and an inheritance attribute (e.g., P. 61 – sample class stanza – class_comment, priority etc.; P. 70, 2nd Bullet – this class name is assigned to the user...; Sec. 3.5.3 – Changing a job's priority – the administrator or user may need to run a job at a higher or lower priority for various reasons).

5. **As to claim 3** (Original) (incorporating the rejection in claim 1), Balasayee discloses the specification of workload management properties further comprises minimum values and maximum values for CPU, memory, and disk I/O shares for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 4th Par. – WLM monitors the CPU and physical memory utilization for all the classes of jobs and regulates their resource consumption using minimum, maximum and target values set for each class by the system administrator; 6th Par. – Classes can be given a relative importance using an attribute of the class called the tier number. A class with a lower tier number will be considered more important and, thus will have resources applied preferentially to a less critical class with higher tier number; Sec. 3.4.3 – Resource limits; P. 54; Sec. 5.1 – AIX® Workload Manager and RS/6000 SP overview, 1st Par. – Using WLM, you can control the allocation of resources, such as CPU and memory, to users and application).

6. **As to claim 4** (Original) (incorporating the rejection in claim 1), Balasayee discloses the method wherein installing an executable file further comprises:

- configuring the workload management class in dependence upon the workload management properties (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 3rd Par. through 6th Par. – WLM (Work Load Manager) introduces the concept of class to AIX®; A class is a collection of processes. WLM monitors the CPU and physical memory utilization for all these classes of jobs and regulates their resource consumption (a specification) using minimum, maximum and target values set for each class (properties) by the system administrator; WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file); Classes can be given a relative importance using an attribute of the class called the tier numbers); and
- storing a class name of the workload management class in association with a pathname for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

7. **As to claim 5** (Original) (incorporating the rejection in claim 1), Balasayee discloses the method wherein installing an executable file further comprises storing a class name for the workload management class in association with a pathname for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

8. **As to claim 6** (Original) (incorporating the rejection in claim 5), Balasayee discloses the method wherein storing a class name for the workload management class in association with a pathname for the executable file further comprises storing the class name in the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

9. **As to claim 7** (Original) (incorporating the rejection in claim 5), Balasayee discloses the method wherein storing a class name for the workload management class in association with a pathname for the executable file further comprises storing the class

name in a data structure that represents the executable file in an operating system (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

10. **As to claim 8** (Original) (incorporating the rejection in claim 5), Balasayee discloses the method wherein assigning the process to the workload management class further comprises:

- identifying the workload management properties for the workload management class in dependence upon the pathname (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)); and
- configuring the workload management class in dependence upon the workload management properties (e.g., Sec. 2.3 – AIX® Workload Manager – WLM monitors and regulates the allocation of system resources for use applications running on an RS/6000 server; Sec. 2.3.1 – The goal of AIX® Workload Manager, 1st Par. – The goal of AIX® Workload Manager is to provide ways of

controlling resources within an RS/6000 server on in an SP node in order to balance the workload at the node level by assigning relative priorities to various sets of tasks or to prevent one application from monopolizing the system resources).

11. **As to claim 9** (Original), Balasayee discloses a system for assigning computational processes to workload management classes, the system comprising:

- means for executing a process in dependence upon the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)); and
- means for assigning the process to the workload management class (e.g., Sec. 2.3 – AIX® Workload Manager – WLM monitors and regulates the allocation of system resources for use applications running on an RS/6000 server; Sec. 2.3.1 – The goal of AIX® Workload Manager, 1st Par. – The goal of AIX® Workload Manager is to provide ways of controlling resources within an RS/6000 server on in an SP node in order to balance the workload at the node level by assigning relative priorities to various sets of tasks or to prevent one application from monopolizing the system resources)

Further, Balasayee discloses that the goal of workload management is to optimize the allocation of resources to the task that are to be executed by an RS/6000 SP environment (e.g., Preface), but does not explicitly disclose other limitations stated below.

However, in an analogous art of *Increasing Fault-Tolerance and Minimizing Network Bandwidth Requirements in Software Installation Modules*, Marchand discloses means for installing on a computer system an executable file from a software installation package, wherein the software installation package includes a specification of workload management properties for the executable file, including a definition of a workload management class (e.g., Fig. 2, elements 270 – Workload Management Module; 260 – Installation Management Module; [0021] - ... for asynchronous software package data distribution and subsequent installation wherein software installation triggering is performed through a job distribution workload management module; [0044] - ... a job-distribution workload management module 270 is used to trigger software installation ... [0045] - ... an embodiment of the present invention may use the capacity of the workload management module 270 to perform pre- and post-task distribution procedures, which may include software installation ...)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Marchand into the Balasayee's system to further provide other limitations stated above in the Balasayee system.

The motivation is that it would further enhance the Balasayee's system by taking, advancing and/or incorporating the Marchand's system which offers significant advantages that the system and method improve speed, scalability, robustness, and dynamism of software installation modules; computer system management, such as operating system update or installation, can benefit fro a priori transfer of sets of software package data file or other data to remote computers prior to installation taking place as once suggested by Marchand (e.g., [0018])

12. **As to claim 10** (Original) (incorporating the rejection in claim 9), please refer to claim **2** as set forth accordingly.

13. **As to claim 11** (Original) (incorporating the rejection in claim 9), please refer to claim **3** as set forth accordingly.

14. **As to claim 12** (Original) (incorporating the rejection in claim 9), Balasayee discloses the system wherein means for installing the executable file further comprises:

- means for configuring the workload management class in dependence upon the workload management properties (e.g., Sec. 2.3 – AIX® Workload Manager – WLM monitors and regulates the allocation of system resources for use applications running on an RS/6000 server; Sec. 2.3.1 – The goal of AIX® Workload Manager, 1st Par. – The goal of AIX® Workload Manager is to provide ways of controlling resources within an RS/6000 server on in an SP node in order

to balance the workload at the node level by assigning relative priorities to various sets of tasks or to prevent one application from monopolizing the system resources); and

- means for storing a class name of the workload management class in association with a pathname for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

15. **As to claim 13 (Original)** (incorporating the rejection in claim 9), Balasayee discloses the system wherein means for installing an executable file further comprises means for storing a class name for the workload management class in association with a pathname for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

16. **As to claim 14** (Original) (incorporating the rejection in claim 13), Balasayee discloses the system wherein means for assigning the process to the workload management class further comprises:

- means for identifying the workload management properties for the workload management class in dependence upon the pathname (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)); and
- means for configuring the workload management class in dependence upon the workload management properties (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 3rd Par. through 6th Par. – WLM (Work Load Manager) introduces the concept of class to AIX®; A class is a collection of processes. WLM monitors the CPU and physical memory utilization for all these classes of jobs and regulates their resource consumption (a specification) using minimum, maximum and target values set for each class (properties) by the system administrator; WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file); Classes can be given a relative importance using an attribute of the class called the tier numbers).

17. **As to claim 15** (Original), Balasayee discloses a computer program product for assigning computational processes in a computer system to workload management classes, the computer program product comprising:

- a recording medium;
- means, recorded on the recording medium, for executing a process in dependence upon the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)); and
- means, recorded on the recording medium, for assigning the process to the workload management class (e.g., Sec. 2.3 – AIX® Workload Manager – WLM monitors and regulates the allocation of system resources for use applications running on an RS/6000 server; Sec. 2.3.1 – The goal of AIX® Workload Manager, 1st Par. – The goal of AIX® Workload Manager is to provide ways of controlling resources within an RS/6000 server on in an SP node in order to balance the workload at the node level by assigning relative priorities to various sets of tasks or to prevent one application from monopolizing the system resources)

Further, Balasayee discloses that the goal of workload management is to optimize the allocation of resources to the task that are to be executed by an RS/6000 SP environment (e.g., Preface), but does not explicitly disclose other limitations stated below.

However, in an analogous art of *Increasing Fault-Tolerance and Minimizing Network Bandwidth Requirements in Software Installation Modules*, Marchand discloses means, recorded on the recording medium, for installing on the computer system an executable file from a software installation package, wherein the software installation package includes a specification of workload management properties for the executable file, including a definition of a workload management class (e.g., Fig. 2, elements 270 – Workload Management Module; 260 – Installation Management Module; [0021] - ... for asynchronous software package data distribution and subsequent installation wherein software installation triggering is performed through a job distribution workload management module; [0044] - ... a job-distribution workload management module 270 is used to trigger software installation ... [0045] - ... an embodiment of the present invention may use the capacity of the workload management module 270 to perform pre- and post-task distribution procedures, which may include software installation ...)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Marchand into the Balasayee's system to further provide other limitations stated above in the Balasayee system.

The motivation is that it would further enhance the Balasayee's system by taking, advancing and/or incorporating the Marchand's system which offers significant advantages that the system and method improve speed, scalability, robustness, and dynamism of software installation modules; computer system management, such as operating system update or installation, can benefit fro a priori transfer of sets of software package data file or other data to remote computers prior to installation taking place as once suggested by Marchand (e.g., [0018])

18. **As to claim 16** (Original) (incorporating the rejection in claim 15), please refer to claim **2** as set forth accordingly.

19. **As to claim 17** (Original) (incorporating the rejection in claim 15), please refer to claim **3** as set forth accordingly.

20. **As to claim 18** (Original) (incorporating the rejection in claim 15), Balasayee discloses the computer program product wherein means, recorded on the recording medium, for installing the executable file further comprises:

- means, recorded on the recording medium, for configuring the workload management class in dependence upon the workload management properties (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 3rd Par. through 6th Par.
 - WLM (Work Load Manager) introduces the concept of class to AIX®; A class is a collection of processes. WLM monitors the CPU and physical memory

utilization for all these classes of jobs and regulates their resource consumption (a specification) using minimum, maximum and target values set for each class (properties) by the system administrator; WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file); Classes can be given a relative importance using an attribute of the class called the tier numbers); and

- means, recorded on the recording medium, for storing a class name of the workload management class in association with a pathname for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

21. **As to claim 19** (Original) (incorporating the rejection in claim 15), Balasayee discloses the computer program product wherein means, recorded on the recording medium, for installing an executable file further comprises means, recorded on the recording medium, for storing a class name for the workload management class in association with a pathname for the executable file (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. - WLM automatically assigns every process to a class

using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)).

22. **As to claim 20** (Original) (incorporating the rejection in claim 19), Balasayee discloses the computer program product wherein means, recorded on the recording medium, for assigning the process to the workload management class further comprises:

- means, recorded on the recording medium, for identifying the workload management properties for the workload management class in dependence upon the pathname (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 5th Par. – WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file)); and
- means, recorded on the recording medium, for configuring the workload management class in dependence upon the workload management properties (e.g., Sec. 2.3.2 – AIX® Workload Manager architecture, 3rd Par. through 6th Par. – WLM (Work Load Manager) introduces the concept of class to AIX®; A class is a collection of processes. WLM monitors the CPU and physical memory utilization for all these classes of jobs and regulates their resource consumption (a specification) using minimum, maximum and target values set for each class

(properties) by the system administrator; WLM automatically assigns every process to a class using a set of assignment rules given by the system administrator. This class assignment is done based on the value of three attributes of the process: User ID, group ID, and the pathname of the application file it executes (the executable file); Classes can be given a relative importance using an attribute of the class called the tier numbers)

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben C. Wang whose telephone number is 571-270-1240. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ben C Wang/
Ben C. Wang
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192